

LISTING OF CLAIMS

1(currently amended). An article treated by an electroless method [for treating a substrate having an electrically conductive surface] comprising:

contacting at least a portion of the surface with a medium comprising at least one silicate and having a basic pH and wherein said medium is substantially free of chromates,

drying the substrate,

[rinsing the substrate,

drying the substrate]

applying a coating selected from the group consisting of latexes, silanes, epoxies, silicone, amines, alkyds, urethanes, polyesters and acrylics.

2(currently amended). [An aqueous medium for use in an electroless process for treating a conductive surface comprising a combination comprising] The article of Claim 1 wherein the medium comprises water, at least one water soluble silicate, colloidal silica, at least one dopant and wherein the medium has a basic pH and is substantially free of chromates and VOCs.

3. cancelled.

4(currently amended). The [method of Claim 1] article of Claim 2 wherein the medium comprises water, sodium silicate and colloidal silica.

5(currently amended). The [method of Claim 1] article of Claim 1 wherein the surface comprises at least one member selected from the group consisting of copper, nickel, tin, iron, zinc, aluminum, magnesium, stainless steel and steel and alloys thereof.

6. cancelled.

7(currently amended). The [method] article of Claim 1 wherein the medium comprises at least one dopant selected from the group consisting of zinc, cobalt, molybdenum and nickel.

8(currently amended). The [method] article of Claim 1 wherein said [first] drying is conducted at a temperature of at least about 120C.

9 cancelled.

10(currently amended). The [medium] article of Claim 2 wherein the medium comprises a combination comprising water, colloidal silica, greater than 1 wt.% of sodium silicate and further comprises at least one dopant selected from the group consisting of cobalt, nickel, molybdenum and zinc.

11 cancelled.

12(currently amended). The [medium] article of Claim [3] 2 wherein said dopant comprises at least one member selected from the group consisting of from the group of titanium chloride, tin chloride, zirconium acetate, zirconium oxychloride, calcium fluoride, tin fluoride, titanium fluoride, zirconium fluoride; ammonium fluorosilicate, aluminum nitrate; magnesium sulphate, sodium sulphate, zinc sulphate, copper sulphate; lithium acetate, lithium bicarbonate, lithium citrate, lithium metaborate, lithium vanadate and lithium tungstate.

13(currently amended). The [method] article of Claim 1 wherein said medium comprises sodium silicate, water, colloidal silica and at least one dopant, [said] and further comprising rinsing [is conducted] with a second medium comprising water and at least one member selected from the group consisting of silanes and colloidal silica and further comprising applying at least one secondary coating comprising at least one

[member selected from the group consisting of acrylics, urethanes, polyester and epoxies] epoxy.

14(currently amended). The [method] article of Claim 1 wherein said rinsing comprising contacting said surface with a solution comprising water and at least one dopant.

15(currently amended). The [method] article of Claim 14 wherein the dopant comprises at least one member selected from the group consisting of molybdenum, chromium, titanium, zircon, vanadium, phosphorus, aluminum, iron, boron, bismuth, gallium, tellurium, germanium, antimony, niobium, magnesium, manganese, zinc, aluminum, cobalt, nickel and their oxides and salts.

16(currently amended). The [method] article of Claim [3] 1 further comprising prior to said exposing contacting said surface with a pretreatment comprising at least one member selected from the group consisting of acid and basic cleaners.

17 cancelled.

18(currently amended). The [method] article of Claim [3] 1 wherein said [adherent composition] coating comprises at least one [member chosen from the group of latex, silanes, epoxies, silicone, amines, alkyds, urethanes, polyester and acrylics] silane.

19(original). An article comprising an electrically conductive substrate comprising zinc wherein at least a portion of which has an inorganic and chromate free surface and at least one composition adhered to said article and wherein said has an ASTM B117 exposure to white rust of greater than 72 hours.

20(new). The article of Claim 1 wherein said medium further comprises at least one reducing agent selected from the group consisting of sodium borohydride and hypophosphide.

21(new). The article of Claim 1 wherein the medium comprises an aqueous medium that is heated to a temperature greater than about 50C.

22(new). The article of Claim 19 wherein the surface comprises at least one silicate and the adhered composition comprises at least one epoxy.

23(new). The article of Claim 22 wherein a silica containing layer is located between the surface and the adhered composition.